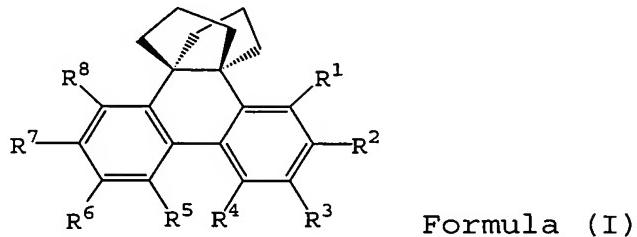


**ABSTRACT OF THE DISCLOSURE**

A phenanthrene compound represented by the formula (I):



Formula (I)

in which, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, and R<sup>8</sup> are identical or different and may each be hydrogen, halogen, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, or a conjugated group. The phenanthrene compound has a polycyclic structure and semiconductor properties including electron transfer, electroluminescence, and photoluminescence.